Two large waterspouts were observed at about 3 p. m. a short distance to the northeast; cloudiness increased between 5 and 6, followed by a thunderstorm moving from east to west.

17th.—*New Orleans, La.*—At 12.55 distant thunder was heard; loudest at 1.14 p. m.; last heard at 2.10 p. m.; storm moved from the southeast to the northwest; direction of wind before the storm, southeast; after the storm, south; temperature before the storm, 90; after the storm, 73; rain began at 1.05 p. m. and ended at 1.40 p. m. About 1.30 p. m., on Lake Pontchartrain, 5 miles from the city, a waterspout was observed. The wind previously had been light and died away to a calm. Dark and threatening clouds spread over the lake and several bright flashes of lightning were seen. The first evidence of the waterspout was a mass of spray whirling in a large circle, which soon increased in rapidity; then a thin, long line of white vapor was observed to descend from the darkest cloud, and as it neared the surface of the lake the mass of spray whirled faster. As the waterspout passed the club house a loud roaring noise was heard. The waterspout passed up the lake and slowly dissolved.

18th.—*Fort Morgan, Ala.*—Weather squally and showery all the early morning. Rain in northwest from about 6 to 7 a. m. At 6 a. m. a large waterspout formed outside, about 5 miles off the shore, moving toward south-southwest and seemed to be a solid connection with the gulf for about 25 or 30 minutes; 8 a. m. light sprinkle of rain here; squalls all around; raining very hard in bay and gulf, with thunderstorms.

24th.—*Oak Hill Post-office, Mosquito Lagoon, Volusia Co., Fla.*—Temperature of the air, 80; wind south; a small waterspout was seen on the lagoon, 2½ miles distant, in which the spiral motion was plainly visible with a field glass. 27th, temperature about 84, wind southeast; a waterspout of large dimensions was observed on the ocean near the horizon; it had a funnel shape, but was too far distant to observe the spiral motion. The first one seen was straight like a ribbon.

TEMPERATURE OF THE AIR.

[*In degrees Fahrenheit.*]

The distribution of the monthly mean temperature of the air over the United States and Canada is shown by the dotted isotherms on Chart II; the lines are drawn over the high irregular surface of the Rocky Mountain plateau, although the temperatures have not been reduced to sea level, and the isotherms, therefore, relate to the average surface of the country occupied by our observers; such isotherms are controlled largely by the local topography, and should be drawn and studied in connection with a contour map.

NORMAL TEMPERATURE.

In Table II, for voluntary observers, the mean temperature is given for each station, but in Table I, for the regular stations of the Weather Bureau, both the mean temperatures and the departures from the normal are given for the current month. In the latter table the stations are grouped by geographical districts, for each of which is given the average temperature and departure from the normal; the normal for any district or station may be found by adding the departures to the current average when the latter is below the normal and by subtracting when it is above.

MONTHLY MEAN TEMPERATURE.

For the regular stations of the Weather Bureau the monthly mean temperature is the simple mean of all the daily maxima and minima; for voluntary stations a variety of methods of computation is necessarily allowed, as shown by the notes appended to Table II.

During June, 1894, the highest mean temperatures were: Yuma and Corpus Christi, 79.4; Brownsville, 82.0; Key West, 80.0.

The lowest mean temperatures were: Eastport, 52.6; Point Reyes Light, 52.2; Tatoosh Island, 53.0; Eureka, 54.4; and at Canadian Stations: Anticosti, 51.8; Edmonton, 58.4.

DEPARTURES FROM NORMAL TEMPERATURE FOR JUNE, 1894.

As compared with the normal for June the temperatures for the current month were decidedly in excess in the Lake region, the Dakotas, the Mississippi and Missouri valleys; but were deficient in the south Atlantic and Gulf States, the entire plateau region, and Pacific States. The greatest excesses were: 7.1, St. Vincent; 7.3, Winnipeg; 5.4, Moorhead; 4.9, Duluth and St. Paul; 5.8, Marquette; 5.6, Green Bay; 6.1, Milwaukee. The largest deficits were: 5.4, Yuma; 5.3, Tucson; 4.4, Los Angeles; 5.0, Winnemucca; 5.2, Red Bluff; 4.5, Portland, Oreg.

The departures from normal temperature for the current month, by districts, are as follows:

Positive departures: New England, 1.0; middle Atlantic coast, 1.0; Ohio Valley and Tennessee, 1.7; lower Lake region, 2.9; upper Lake region, 5.1; North Dakota, 5.4; upper Mississippi, 4.5; Missouri Valley, 2.4; northern slope, 0.2.

Negative departures: South Atlantic coast, 0.7; Key West, 2.7; east Gulf States, 1.1; west Gulf States, 1.4; middle slope, 0.4; southern slope (Abilene), 0.5; southern plateau, 3.6; middle plateau, 4.4; northern plateau, 2.5; north Pacific coast, 1.2; middle Pacific, 3.5; south Pacific coast, 4.0.

The following table shows for certain stations, as reported by voluntary observers, the normal and extreme mean temperatures for this month:

State and station.	(1) Normal for the month of June.	(2) Length of record.	(3) Mean for June, 1894.	(4) Departure from normal.	(5) Extreme monthly means for June.			
					Highest.	Year.	Lowest.	Year.
Arizona.	°	*Years*	°	°	°		°	
Fort Apache	71.5	22	65.1	— 6.4	78.0	1876	63.6	1884
Whipple Barracks	69.4	23	61.6	— 7.8	78.9	1876	61.6	1894
Arkansas.								
Keesees Ferry	76.9	12	74.7	— 2.2	80.2	1885	73.8	1893
California.								
Riverside	71.0	12	63.8	— 7.2	78.1	1883	63.8	1894
Colorado.								
Las Animas	69.9	11	68.2	— 1.7	72.5	1887	68.1	1884
Florida.								
Merritts Island	78.7	12	79.1	+ 0.4	83.4	1890	73.8	1892
Georgia.								
Forsyth	76.9	20	80.5	+ 3.6	81.9	1880, 1881	74.2	1884
Idaho.								
Boise Barracks	66.3	20	61.7	— 4.6	74.3	1871	60.0	1891
Fort Sherman	60.6	11	.....	.....	64.4	1882	55.0	1893
Indiana.								
Lafayette	70.6	12	72.7	+ 2.1	75.7	1890	66.2	1889
Iowa.								
Cresco	66.1	21	69.4	+ 3.3	72.0	1873	62.8	1877
Kansas.								
Eureka Ranch	75.5	11	74.3	— 1.2	80.0	1890	70.8	1892
Independence	74.8	22	78.1	+ 3.3	79.0	1872	70.8	1889
Salina	75.3	10	75.9	+ 0.6	79.3	1890	71.2	1891
Louisiana.								
Grand Coteau	79.6	11	77.5	— 2.1	82.0	1891	77.5	1894
Maine.								
Orono	62.1	23	60.9	— 1.2	64.8	1884, 1889	57.5	1881
Maryland.								
Cumberland	68.9	23	72.2	+ 3.3	74.0	1874	65.3	1878
Michigan.								
Kalamazoo	67.6	17	70.8	+ 3.2	70.8	1894	63.7	1889
Missouri.								
Sedalia	74.3	12	77.2	+ 2.9	80.5	1890	71.6	1891
Montana.								
Fort Custer	63.8	12	67.1	+ 3.3	67.1	1894	60.8	1891
Nebraska.								
Fort Robinson	67.1	9	67.0	— 0.1	71.7	1887	62.5	189[illegible]
Genoa (near)	69.6	18	73.7	+ 4.1	73.7	1894	66.4	187[illegible]

Departures from normal temperature—Continued.

State and station.	(1) Normal for the month of June.	(2) Length of record.	(3) Mean for June, 1894.	(4) Departure from normal.	(5) Extreme monthly means for June.			
					Highest.	Year.	Lowest.	Year.
Nevada.	°	*Years*	°	°	°		°	
Browns	75.8	23	.....	.....	83.7	1873	69.0	1882
Carson City	64.2	16	54.9	— 9.3	69.9	1876	54.9	1894
New Hampshire.								
Hanover	64.3	23	65.4	+ 1.1	65.8	1876	61.5	1881
New Mexico.								
Fort Wingate	69.6	22	64.4	— 5.2	75.2	1881	63.6	1891
New York.								
Cooperstown	64.2	23	65.6	+ 1.4	70.0	1876	59.0	1881
Plattsburg Barracks	64.9	23	66.6	+ 1.7	68.8	1872	60.8	1881
North Carolina.								
Lenoir	70.5	22	72.1	+ 1.6	75.0	1874	63.6	1887
Oklahoma.								
Fort Reno	75.1	10	76.6	+ 1.5	76.9	1890	72.5	1889
Fort Sill	77.8	22	76.0	— 1.8	83.2	1881	73.8	1889
Fort Supply	75.8	14	75.4	— 0.4	80.7	1893	72.6	1891
Oregon.								
Bandon	56.4	10	57.0	+ 0.6	59.8	1891	54.1	1887
Pennsylvania.								
Dyberry	64.3	21	64.8	+ 0.5	66.8	1884	60.4	1881
Grampian	66.8	23	69.0	+ 2.2	71.7	1892	61.3	1878
Wellsboro	65.5	15	65.6	+ 0.1	74.6	1883	61.1	1881
South Carolina.								
Statesburg	76.2	13	78.0	+ 1.8	80.5	1881	72.4	1884
South Dakota.								
Fort Sully	69.1	23	73.4	+ 4.3	76.1	1871	63.6	1877
Texas.								
Austin	83.0	21	81.7	— 1.3	85.9	1881	78.2	1893
Silver Falls	76.6	7	.....	.....	79.5	1893	71.8	1889
Utah.								
Terrace	73.0	22	.....	.....	79.3	1878	60.8	1885
Vermont.								
Strafford	65.7	21	63.8	— 1.9	71.1	1884	58.4	1881
Virginia.								
Dale Enterprise	72.5	14	70.2	— 2.3	78.5	1890	68.2	1882
Washington.								
Fort Townsend	58.3	21	55.5	— 2.8	61.6	1888	52.6	1893
West Virginia.								
Parkersburg	.....	.....	.....	.....	.....	.....	.....	.....
Wisconsin.								
Madison	67.3	21	71.4	+ 4.1	72.4	1873	63.5	1889
Wyoming.								
Fort Washakie	62.3	10	60.4	— 1.9	68.9	1887	58.5	1892

YEARS OF HIGHEST MEAN TEMPERATURE FOR JUNE.

The mean temperature for June, 1894, was the highest on record at regular Weather Bureau stations, as shown in the following table, which also gives the highest previous record:

Stations.	June, 1894.		Highest previous.	
	Mean temperature.	Departure from normal.	Temperature.	Year.
Des Moines, Iowa	74.4	4.1	73.2	1890
Dubuque, Iowa	74.4	5.6	73.6	1890
Chicago, Ill	71.4	5.1	70.5	1884
Huron, S. Dak	70.4	4.1	70.2	1893
Valentine, Nebr	70.4	3.4	69.8	1893
Green Bay, Wis	70.1	5.6	69.4	1890
Milwaukee, Wis	68.8	8.1	67.9	1890
Port Stanley, Wash	68.0	4.9	67.4	1890
Duluth, Minn	62.7	4.9	61.3	1872

YEARS OF LOWEST MEAN TEMPERATURE FOR JUNE.

The mean temperature for June, 1894, was the lowest on record at regular Weather Bureau stations, as shown in the following table:

Stations.	June, 1894.		Lowest previous.	
	Mean temperature.	Departure from normal.	Temperature.	Year.
Sacramento, Cal	64.8	—4.2	65.8	1884
Red Bluff, Cal	69.1	—5.2	69.6	1884
Winnemucca, Nev	57.8	—5.0	58.0	1891
Carson City, Nev	56.6	—4.1	58.8	1891
San Francisco, Cal	55.9	—3.9	56.0	1880

MAXIMUM TEMPERATURE.

The maximum temperatures of the month at regular stations of the Weather Bureau are given in Table I, from which it appears that the highest maxima were: Yuma, 108; Tucson, 104; Little Rock and Dodge City, 102; Mobile, Pensacola, Abilene, and Red Bluff, 101; El Paso, Sioux City, Columbia, S. C., and Montgomery, 100. The lowest maxima were: Key West, 87; Hatteras, 84; Eastport, 72; San Francisco and Fort Canby, 69; Tatoosh Island, 68; Eureka, 65; Point Reyes Light, 64.

YEARS OF HIGHEST MAXIMUM TEMPERATURE FOR JUNE.

The maximum temperature for June was the highest on record at regular Weather Bureau stations, as shown in the following table:

Stations.	June, 1894.		Highest previous.	
	Maximum.	Excess above previous record.	Temperature.	Year.
Mobile, Ala	101	+ 1	100	*
Pensacola, Fla	101	+ 4	97	1881
New Orleans, La	97	0	97	1881
Little Rock, Ark	102	+ 4	98	1882
St. Louis, Mo	99	0	99	1881
Springfield, Ill	97	0	97	1890
Green Bay, Wis	94	0	94	1890
Huron, S. Dak	98	+ 1	97	*
Port Huron, Mich	94	0	94	1890
Detroit, Mich	94	0	94	*
Erie, Pa	92	+ 1	91	*
Rochester, N. Y	95	0	95	1888
Baltimore, Md	98	0	98	1893

* Frequently.

MINIMUM TEMPERATURE.

The minimum temperatures of the month at regular stations of the Weather Bureau are given in Table I, from which it appears that the lowest minima were:

Northfield, 30; Huron, Baker City, and Wichita, 31; St. Vincent, 32; Sault Ste. Marie and Alpena, 34.

The highest minima were: Key West, 69; Port Eads, 68; Jupiter, 66; Tampa, 65; Corpus Christi and Galveston, 64; Jacksonville, 62.

YEARS OF LOWEST MINIMUM TEMPERATURE FOR JUNE.

The minimum temperatures for June were the lowest on record at regular Weather Bureau stations as shown in the following table:

Stations.	June, 1894.		Lowest previous.	
	Minimum.	Deficit below previous record.	Temperature.	Year.
Fort Canby, Wash	44	0	44	*
San Francisco, Cal	47	0	47	*
Red Bluff, Cal	46	0	46	1892
Carson City, Nev	27	— 4	31	1892
Los Angeles, Cal	46	0	46	1892
San Diego, Cal	50	0	50	1884
Huron, S. Dak	31	— 3	34	1883
Fort Smith, Ark	49	— 1	50	*
Little Rock, Ark	51	0	51	1889
Green Bay, Wis	38	0	38	1888
Milwaukee, Wis	38	— 2	40	*
Chicago, Ill	40	0	40	1875
Grand Haven, Mich	39	0	39	*
Alpena, Mich	34	0	34	*
Port Huron, Mich	35	— 2	37	*
Detroit, Mich	38	0	38	*
Toledo, Ohio	41	— 1	42	*
Sandusky, Ohio	40	— 2	42	1889
Cleveland, Ohio	48	— 3	41	1889
Erie, Pa	40	— 2	42	1879
Northfield, Vt	30	0	30	1891
Atlantic City, N. J	47	0	47	1879
Baltimore, Md	47	0	47	1891
Norfolk, Va	49	— 4	53	1884
Kittyhawk, N. C	52	0	52	1884
Raleigh, N. C	46	— 3	49	1889
Knoxville, Tenn	43	— 1	44	1889
Columbus, Ohio	41	— 1	42	1889
Indianpolis, Ind	39	— 2	41	*
Springfield, Ill	40	— 2	42	1889
St. Louis, Mo	44	— 3	47	1889
Cairo, Ill	46	0	46	1889
Nashville, Tenn	42	— 4	46	1889
Key West, Fla	69	0	69	1887

* Frequently.

THE DAILY AND MONTHLY RANGES OF TEMPERATURE.

The greatest daily range of temperature is given for each of the regular Weather Bureau stations in Table I, which also gives data from which may be computed the extreme monthly ranges for each station.

Greatest daily ranges.—Huron, 50; St. Vincent and Olympia, 46; Tucson, 44; Sioux City and Idaho Falls, 42; Northfield, Moorhead, and Denver, 41; Sault Ste. Marie and Laramie, 40.

Small daily ranges.—Port Eads, 13; Galveston and Hatteras, 14; Key West and Tatoosh Island, 15; Eureka, 16; Fort Canby, 17.

Greatest monthly ranges.—Huron, 67; St. Vincent, 62; Moorhead, 60; Tucson, 58; Nashville, 56; Carson City and Red Bluff, 55.

Small monthly ranges.—Key West and Port Eads, 18; Point Reyes Light, 20; Jupiter, 21; Galveston and Corpus Christi, 23; and Hatteras, 26.

DIURNAL PERIODICITY.

The regular diurnal period in temperature is shown by the hourly means given in Table V for all stations having self-registers.

LIMITS OF FREEZING TEMPERATURE.

The region within which the air has had a freezing temperature at some time during the month is bounded by the minimum isotherm of 32°. During June this included only the high stations of Boise City, Idaho Falls, Laramie, Winnemucca, and Carson City. The minimum for Pikes Peak was 42°.

ACCUMULATED TEMPERATURES.

From January 1 to the end of the current month the average temperature for each geographical district was above or below the normal by an amount that is given in the last column of the following table. The total accumulated departures from normal temperatures, as given in the second column, may be used for comparison with the departures of current conditions of vegetation from the normal conditions.

Districts.	Accumulated departures.		Districts.	Accumulated departures.	
	Total.	Average.		Total.	Average.
	°	°		°	°
New England	+7.7	+1.3	Key West	−1.5	−0.9
Middle Atlantic	+12.2	+2.0	Southern plateau	−13.0	−2.2
South Atlantic	+7.7	+1.3	Middle plateau	−9.3	−1.6
East Gulf	+2.6	+0.4	Northern plateau	−5.4	−0.9
West Gulf	+3.1	+0.5	Northern Pacific	−9.3	−1.6
Ohio Valley and Tennessee	+10.3	+1.7	Middle Pacific	−13.4	−2.2
Lower Lake	+17.6	+2.9	Southern Pacific	−16.8	−2.8
Upper Lake	+21.6	+3.6			
North Dakota (Ex. NW.)	+16.5	+2.8			
Upper Mississippi	+17.5	+2.9			
Missouri Valley	+13.6	+2.3			
Northern slope	+1.6	+0.3			
Middle slope	+3.9	+0.6			
Southern slope (Abilene)	+5.3	+0.9			

PERIODS OF HIGH TEMPERATURE.

The maximum temperatures of June generally occurred at the close of the month, but at numerous stations they occurred between the 12th and 17th, and at other places on the 2d and 4th. They may be grouped as follows: 2d, maxima of from 80, at Roseburg, to 93, at Walla Walla, occurred in Washington, Oregon, Idaho, northern Utah, and Nevada. 3d and 4th, this warm wave had extended eastward to central Montana and Wyoming. 12th, maxima of 96 to 98 occurred in the Dakotas and northern Minnesota, as also at isolated stations in Kentucky, Indiana, Ohio, and Michigan. 13th, maxima of 94 to 100 occurred in the south Atlantic States. 14th and 15th, maxima of 90 to 97 occurred in Illinois, Wisconsin, and northern Michigan. On the 23d and 24th the principal maxima of the month, from 91 to 98, occurred in southern New England, the middle Atlantic States, Virginia, and North Carolina. 27th to 30th, the most extensive area of high temperature prevailed from California eastward to the Mississippi, bringing the maxima of the month to most of the stations in this section on the 30th. Maxima exceeding 100 were reported in Arizona, New Mexico, Kansas, Arkansas, Alabama, Iowa, and Florida.

AREAS OF 20° RISE IN TWENTY-FOUR HOURS.

The daily weather charts show by heavy dotted lines the regions over which the temperature has risen 20° in the preceding twenty-four hours. The occurrence of such rapid rises becomes less frequent as we approach the midsummer season, and the following is a list of these areas, with the lengths of their diameters, in miles:

(A) 7th, 8 p. m., 100 by 100, in northern Illinois.

(B) 10th, 500 by 200, in northern Minnesota, Dakota, and Manitoba.

PERIODS OF LOW TEMPERATURE.

The minimum temperatures of the month occurred principally during the first week, except on the Pacific coast, where they were nearer the middle of the month. The dates of occurrence may be grouped as follows: On the 10th, in western Washington and Oregon; 11th, in eastern Washington, Oregon, Idaho, and northern California; 12th, in Nevada; 13th, in southern California; 14th and 15th, in western Montana. On the 13th and 14th the minimum of the month occurred throughout southern Florida and southern New England. On the 1st or 2d the lowest temperature of the month occurred throughout the southern slope, the Gulf States, the south Atlantic States, Tennessee, Kentucky, southern Ohio, and Virginia. On the 5th, in connection with high area No. IV, the minimum of the month occurred over the Dakotas, Minnesota, northern Wisconsin, and Lake Superior. By the 6th, a. m., this cool wave had brought the minimum of the month to Nebraska, northern Kansas, Iowa, Missouri, Illinois, Indiana, Michigan, northern Ohio, and western New York. By the 7th and 8th this cool wave had moved eastward over the middle Atlantic States and New England, but the southward flow of the cold air also brought the minimum of the month to Hatteras and Southport, on the coast of North Carolina.

AREAS OF 20° FALL IN TWENTY-FOUR HOURS.

A fall of temperature of 20°, or more, in twenty-four hours is not called a cold wave by the Weather Bureau unless the temperature falls below 40°, and is, therefore, likely to cause a frost injurious to vegetation, but all falls of 20° are indicated on the Daily Weather Map by inclosing the areas within which they occur by heavy dotted lines, and the following list enumerates these regions for the month of June:

(A) 5th, p. m., 400 by 150, Illinois.

(B) 5th, p. m., 200 by 250, eastern Colorado.

(C) 6th, p. m., 500 by 200, Virginia, North and South Carolina.

(D) 7th, p. m., 300 by 150, western Montana.

(E) 9th, 8 p. m., 400 by 200, North Dakota, Manitoba, and Assiniboia.

(F) 10th, p. m., 150 by 150, Nevada.

(G) 24th, a. m., 150 by 100, on the coasts of Maine and Massachusetts. This was in connection with the southwestward movement of the air from high area No. IX, bringing the cool ocean temperatures to the heated surface of the land.

DESTRUCTIVE FROSTS.

Destructive frosts were reported on the following dates at the localities mentioned in the respective States. From an agricultural point of view, the intensity of a destructive frost

depends upon the injury done to the plants, but this depends, of course, entirely upon the nature of the plant. The reports here tabulated generally state that damage was done to tender vegetation, and it can generally be assumed that a frost, which is known to have injured the tenderest early vegetables, as raised in the forcing houses of the gardeners, is likely to be reported as a destructive frost. By a heavy frost is meant one that injures fruit and grains that are raised in the open air under more natural conditions; even in the latter case, however, the extent of the injury will largely depend upon the location of the field, viz, whether in a quiet valley or on an elevated spot. In general, therefore, the tabulation of frosts must be considered as simply equivalent to showing the places and dates at which the surface of the leaves cooled down to 32° F., or lower, before the cooling was stopped by the formation of dew, fog, or cloud, or by the wind.

5th.—North Dakota: New Salem.

6th.—Toledo, Ohio; the minimum temperature at the station was 41.2, being the lowest on record for June. Illinois: Riley, Winnebago. Wisconsin: Meadow Valley; frost on both 5th and 6th. Illinois: Princeton, Champaign, Rockford, Jacksonville, Decatur, Greenup. Ohio: Cleveland, said to be the heaviest frost since 1859 in northwestern Ohio.

7th.—Indiana: Indianapolis and Kokomo. Ohio: Hedges.

8th.—Colorado: T. S. Ranch. Connecticut: Falls Village.

11th.—Nevada: Reno.

14th.—Wyoming: Saratoga.

20th.—Arizona: Show Low.

PRECIPITATION.

[*In inches and hundredths.*]

The distribution of precipitation for the month of June, 1894, as determined by reports from about 2,000 stations, is exhibited on Chart III. The numerical details are also given in Tables I, II, and III; the first of these gives the average departures from the normal for each district, whereas the average departure for each State is given in the chapter on State Weather Services.

NORMAL PRECIPITATION FOR JUNE.

The normal precipitation for the month of June is less than 1 in the middle plateau, the middle Pacific and southern Pacific regions. Between 1 and 2 in the southern and northern plateau regions; from 2 to 4 in the north Pacific, northern slope, middle slope, and southern slope regions, North Dakota, upper and lower Lake regions, middle Atlantic and New England regions; from 4 to 6 in the Ohio Valley and Tennessee, the Gulf States, and south Atlantic States.

PRECIPITATION FOR CURRENT MONTH.

The total precipitation for June was heaviest in the Florida Peninsula, where it was from 10 to 15; a region exceeding 8 occurred in southern Louisiana and the adjacent coast of Texas. Small areas of 6 occurred in western Minnesota, the eastern portion of North Dakota, and South Dakota, also in western Missouri, eastern Kansas, and Nebraska; only a trace of rain was reported from Arizona, southern California, and southern New Mexico.

CURRENT DEPARTURES FROM NORMAL PRECIPITATION.

The precipitation for June was most decidedly in excess of the normal in the middle Atlantic slope, where it was about twice the average amount. It was most decidedly deficient in the east Gulf States, where it was only one-third of the usual amount. The largest deficits were: Pensacola, 5.3; Little Rock, 4.3; Mobile, 4.2. The largest excesses were Galveston and Augusta, 4.9.

Considered by districts, the precipitation for June, 1894, when compared with the normal for the month, furnishes the departures given in Table I, as expressed in inches, and also the corresponding following percentages, as found by dividing those departures by the normal precipitation for June (precipitation is in excess when the percentage of the normal exceeds 100):

Below the normal: New England States, 40; middle Atlantic States, 60; south Atlantic States, 71; Key West, 80; east Gulf States, 38; west Gulf States, 72; Ohio Valley and Tennessee, 63; lower Lake region, 79; upper Lake region, 95; upper Mississippi Valley, 37; Missouri Valley, 92; northern slope, 92; southern plateau, 62; northern plateau, 77.

Above the normal: North Dakota, or the extreme northwest, 120; middle slope, 204; southern slope (Abilene), 122; middle plateau, 272; north Pacific, 115; middle Pacific, 128; southern Pacific, 100.

The following table shows for certain stations, as reported by voluntary observers, the normal and extreme total precipitation for this month:

State and station.	(1) Average for the month of June.	(2) Length of record.	(3) Total for June, 1894.	(4) Departure from average.	(5) Extremes for June.			
					Greatest.		Least.	
					Amt.	Year.	Amt.	Year.
Arizona.	*Inches.*	*Years*	*Inches.*	*Inches.*	*Inches.*		*Inches*	
Fort Apache	0.60	18	0.00	— 0.60	3.27	1882	0.00	†
Whipple Barracks	0.15	23	T.	— 0.15	1.24	1872	0.00	†
Arkansas.								
Keesees Ferry	4.95	12	2.06	— 2.89	7.14	1882	2.06	1894
California.								
Riverside	0.06	13	0.04	— 0.02	0.52	1884	0.00	*
Colorado.								
Las Animas	0.69	11	0.03	— 0.66	2.79	1884	0.05	1890
Florida.								
Merritts Island	7.40	16	6.77	— 0.63	14.28	1889	3.32	1878
Georgia.								
Forsyth	4.82	20	2.21	— 2.61	11.14	1886	1.48	1879
Idaho.								
Boise Barracks	0.91	20	0.19	— 0.72	3.41	1884	T.	1893
Fort Sherman	1.33	10	.....	.....	2.11	1885	0.16	1882
Indiana.								
Lafayette	4.19	12	3.54	— 0.65	9.10	1882	1.93	1893
Iowa.								
Cresco	5.37	21	3.00	— 2.37	11.71	1890	2.46	1887
Kansas.								
Independence	5.13	22	2.63	— 2.50	11.26	1881	2.05	1875
Salina	3.67	10	3.97	+ 0.30	6.11	1883	0.92	1892
Louisiana.								
Grand Coteau	6.43	11	2.33	— 4.10	11.31	1886	2.33	1894
Maine.								
Orono	3.51	23	2.90	— 0.61	5.96	1892	0.73	1880
Maryland.								
Cumberland	3.82	22	1.64	— 2.18	10.08	1892	0.86	1885
Michigan.								
Kalamazoo	4.78	18	1.64	— 3.14	8.10	1883	1.64	1894
Missouri.								
Sedalia	5.43	15	6.46	+ 1.03	9.24	1891	1.11	1890
Montana.								
Fort Custer	2.73	13	2.03	— 0.70	5.02	1891	0.90	1889
Nebraska.								
Fort Robinson	2.99	10	3.16	+ 0.17	11.91	1892	0.60	1890
Genoa (near)	4.24	18	4.80	+ 0.56	8.48	1891	1.50	1892
Nevada.								
Browns	0.23	23	.....	.....	1.13	1878	0.00	†
Carson City	0.41	16	1.14	+ 0.73	1.97	1884	0.00	1893
New Hampshire.								
Hanover	3.69	22	2.12	— 1.57	7.42	1892	1.74	1873
New Mexico.								
Fort Wingate	0.61	22	0.00	— 0.61	3.15	1873	0.00	†
New York.								
Cooperstown	4.15	23	2.62	— 1.53	7.31	1872	1.94	1873
Plattsburg Barracks	2.98	23	3.52	+ 0.54	7.62	1892	1.27	1881
North Carolina.								
Lenoir	4.27	22	3.95	— 0.32	10.30	1884	0.90	1881
Oklahoma.								
Fort Reno	4.54	11	1.10	— 3.44	10.33	1885	0.28	1888
Fort Sill	3.71	22	1.04	— 2.67	8.16	1885	0.21	1881
Fort Supply	2.75	14	1.31	— 1.44	5.44	1885	0.40	1874
Oregon.								
Bandon	1.76	16	4.47	+ 2.71	6.11	1881	0.12	1883